

Wildlife Express

June 2022 – Idaho State Emblems

Activities:

Color-a-Trout: Students solve math problems and use a key to color different species of Idaho trout.

State Emblem Wheel: Students illustrate 8 state symbols on a wheel and write a sentence describing each.

Project WILD's Monarch Marathon: Students simulate the multi-generational butterfly migration. An active learning game for students.

In the Life of a Falcon: Students write a comic strip depicting the life of a peregrine falcon and the recovery of the species.

Idaho State Emblem Reports: Students work in small groups to present an Idaho state emblem report. Use the engaging "Learning to Speak with Confidence," handout to get students thinking about becoming great speakers.

Idaho WILD about Early Learners: State symbols lesson plan with many ideas to integrate state symbols.

Color a Salamander: For Fun!



Wildlife Worksheet

Color-A-Trout

Solve the multiplication problems below to decode how to color the trout. Go fishing!

Bull Trout

Head, fin and body

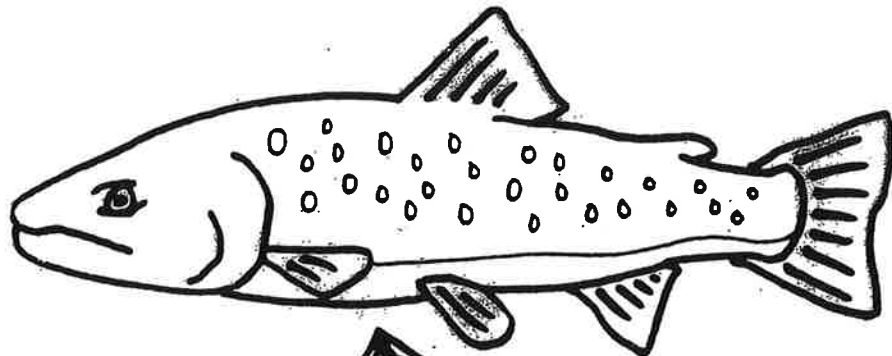
$$254 \times 23 = \underline{\hspace{2cm}}$$

Spots

$$133 \times 61 = \underline{\hspace{2cm}}$$

Belly

$$66 \times 55 = \underline{\hspace{2cm}}$$



Brook Trout

Tail, belly and lower fins

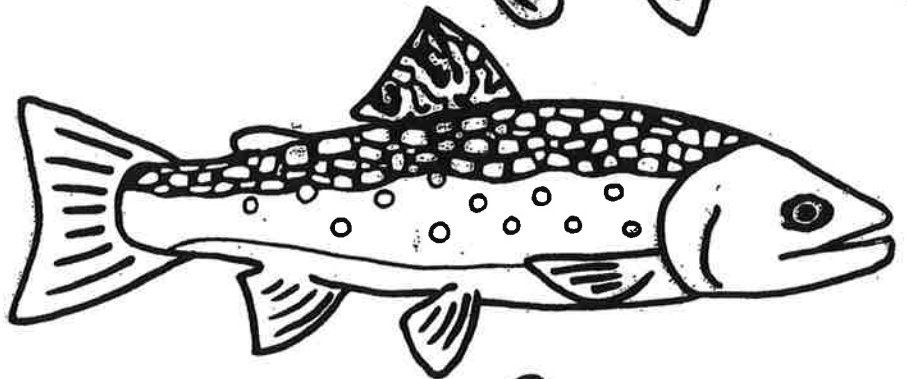
$$80 \times 61 = \underline{\hspace{2cm}}$$

Head and upper body and fin

$$102 \times 94 = \underline{\hspace{2cm}}$$

Lower spots

$$741 \times 2 = \underline{\hspace{2cm}}$$



Yellowstone Cutthroat Trout

Body and fins

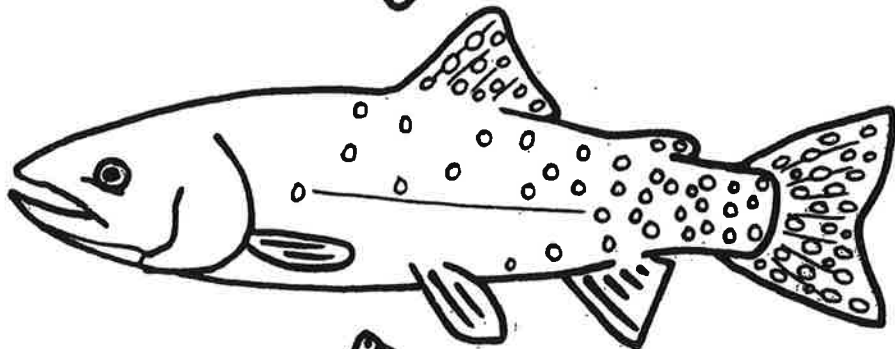
$$70 \times 25 = \underline{\hspace{2cm}}$$

Spots

$$127 \times 50 = \underline{\hspace{2cm}}$$

Chin

$$122 \times 40 = \underline{\hspace{2cm}}$$



Rainbow Trout

Head and upper body

$$77 \times 21 = \underline{\hspace{2cm}}$$

Lower body

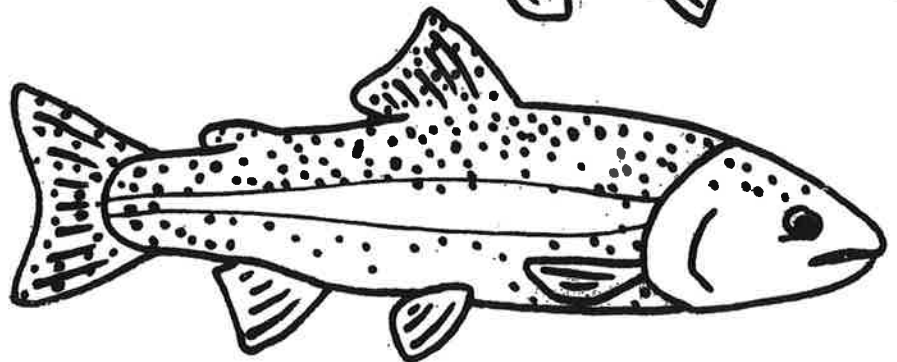
$$363 \times 10 = \underline{\hspace{2cm}}$$

Middle Stripe

$$62 \times 45 = \underline{\hspace{2cm}}$$

Fins

$$75 \times 16 = \underline{\hspace{2cm}}$$



Color Key

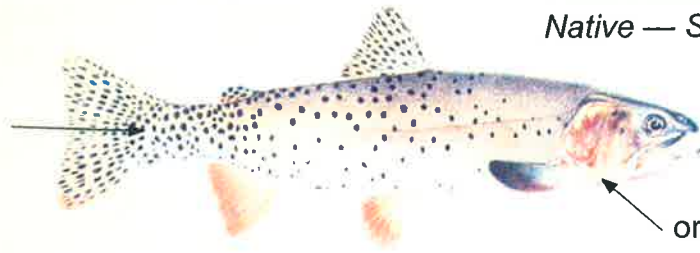
2790 pink
4880 - red-orange
8113 - orange
3630 - white

5842 - gray
1200 - light brown
6350 - black
9588 - brown w/ yellow and green on top

1617 - green w/ gray on top
1750 - brown w/ yellow on top
1482 - blue w/ pink center

Color - a - Trout

Spotting pattern is variable but spots are usually concentrated on the top half of the fish, towards the tail.



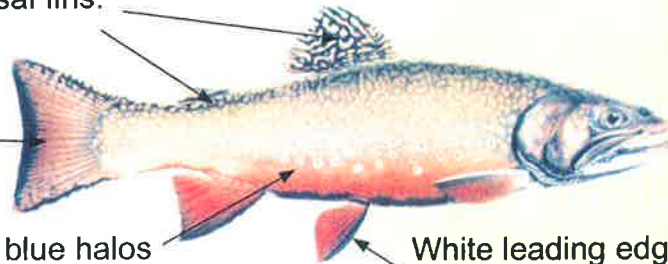
Yellowstone Cutthroat Trout
Native — State Fish

orange/red slash

Wormy markings on back and dorsal fins.

Square tail

Pink spots with blue halos



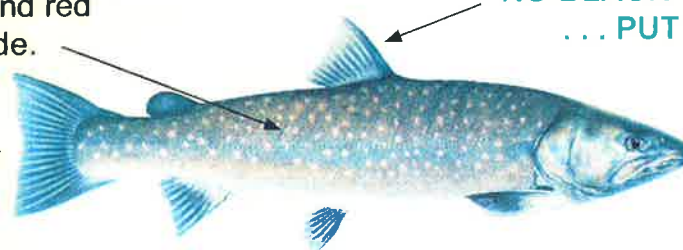
Brook Trout
Non-Native

White leading edge with black shadow on fins.

Bull Trout
Native

Bull trout have pale yellow, orange and red spots on their side.

Bull trout have slightly forked tails.



NO BLACK ON DORSAL FIN
... PUT IT BACK IN!

Rainbow Trout

Non-native in Lake Pend Oreille

Black spots on entire body, especially on the back, head, dorsal and tail fins.

Red, pink, or rosy stripe down the side.



White fin tips

State Emblem Wheel

Subject: Language Arts & Science

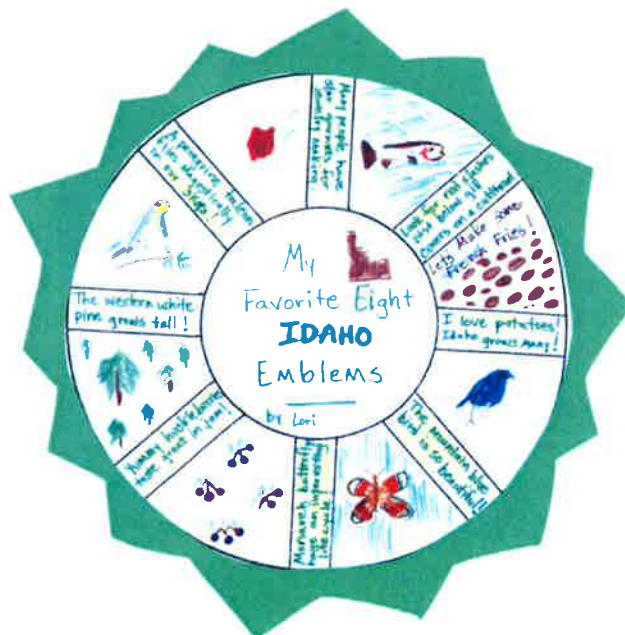
Objective: Students will be able to read Wildlife Express and choose eight state emblems to create a state emblem wheel.

Materials:

- Research materials/ Wildlife Express
- *Wildlife Worksheet* (State Emblem Wildlife Wheel)
- coloring tools (markers, pens, crayons)
- construction paper
- edged scissors (optional for border)

Procedure:

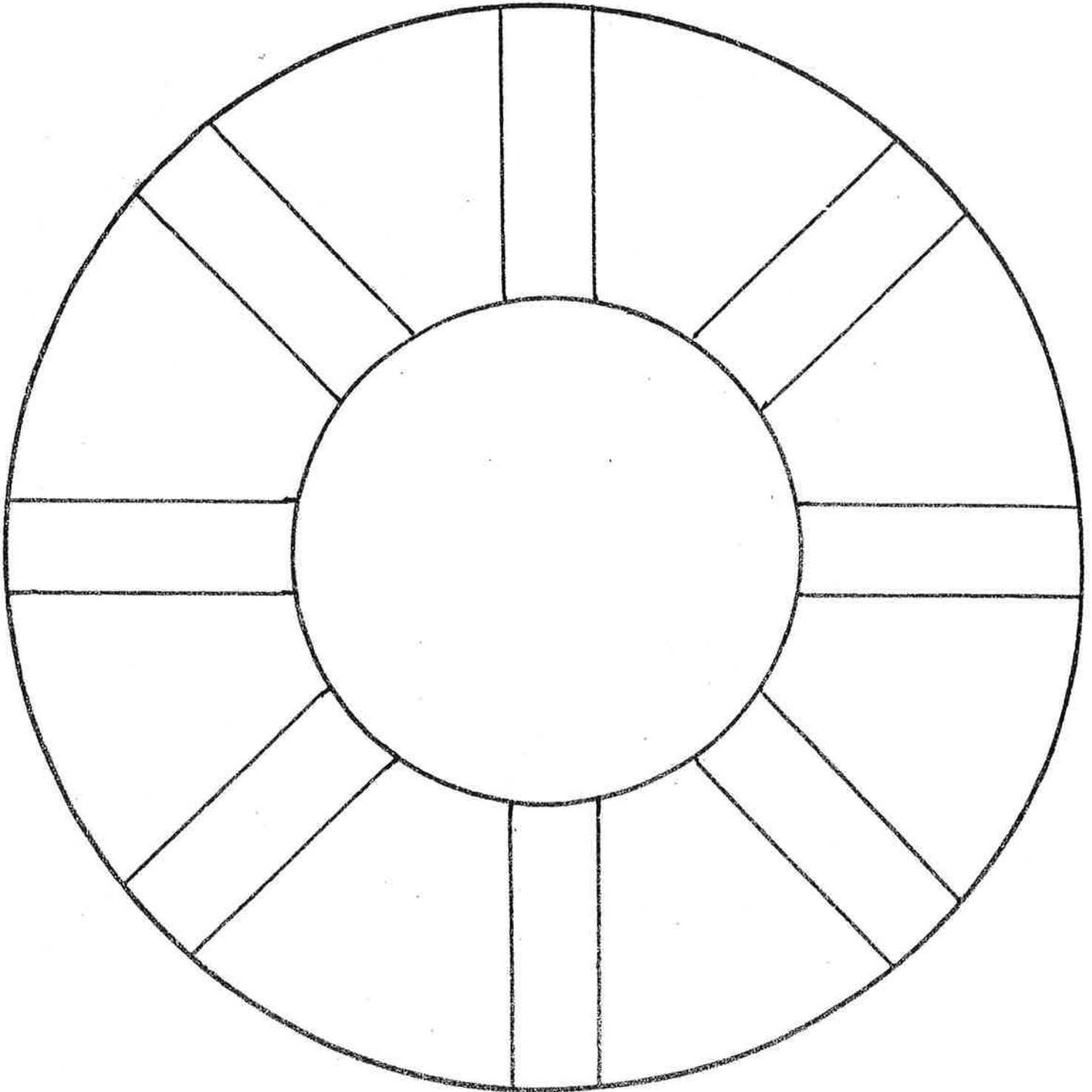
1. Review state emblems in this month's issue of Wildlife Express. Instruct students to choose eight emblems that they would like to highlight on their wheel.
2. Students may also use books and the internet to research other significant facts.
3. Hand out Wildlife Worksheet (State Emblem Wildlife Wheel). Students should write the facts in the "spokes" of the wheel. They should then illustrate and color each emblem on the larger sections of the wheel. The center circle of the wheel should contain a title of their choice and their name.
4. When wheels are filled in with facts and colored, instruct students to cut out the wheel and mount it to a piece of construction paper. To create a border, they should cut around the circle. If available, use edged scissors to cut the border around the construction paper, or they could make their own pattern (zigzag etc).
5. See sample below.



Wildlife Worksheet

State Emblem Wheel

- Place the title of your wheel and your name in the center circle.
- Choose eight emblems. In each rectangle of the circle, write a sentence describing the emblem (a unique fact or description). Illustrate the emblem in the section next to the sentence.
- Cut out the circle and glue it on a piece of construction paper.
- Cut the construction paper around the original circle to create a border.



Monarch Marathon



Grade Level: Upper Elementary, Middle School

Content Areas:
Science, Environmental Education, Social Studies, Physical Education

Method: Students simulate the multi-generational monarch butterfly migration and experience the limiting factors affecting monarch survival.

Materials: Color images of the monarch butterfly and milkweed plant, images or illustrations of monarch life stages; time-lapse video of monarch butterfly metamorphosis (see www.projectwild.org); globe or map; cones, rope, hula hoops or chalk to designate boundaries and habitat areas; poker chips or paper circles to represent nectar.

Activity Time: one or two 45-minute sessions

People Power:
20 or more students

Setting: outdoors or large indoor area

Conceptual Framework

Topic Reference: ITIB1, ITIIA1, ITIIIA3, WPIB, WPIIA2b2, IDIB

Terms to Know: life cycle, metamorphosis, larva, larvae, pupa, chrysalis, host plant, limiting factor, migration, pesticide

Appendices: Climate Change Education

Monarch butterfly migration is an epic journey of metamorphosis and survival. How can we help?

Objectives

Students will be able to (1) describe life cycle and migration of the monarch butterfly; (2) model the life stages of the monarch butterfly; (3) show on a globe or map the migration routes of monarch butterflies; (4) define limiting factors; (5) explain how limiting factors affect monarch butterflies; and (6) discuss conservation actions to help the monarch butterfly.

Background

Monarch butterflies are an iconic symbol in North America, distinctive for their color and for being the only insect in the world to brave such a long annual migration—up to 3,000 miles one way! But in the last 20 years, their numbers have plummeted. The U.S. Fish and Wildlife Service attributes loss of milkweed plants and suitable habitat, illegal deforestation, and severe weather as the major causes of their recent and concerning decline. Let's look at the life cycle and challenges for the monarch, and how we can help.



Schools and neighborhoods can help monarch populations stabilize by planting monarch “waystations” with native milkweed and nectar-producing plants.

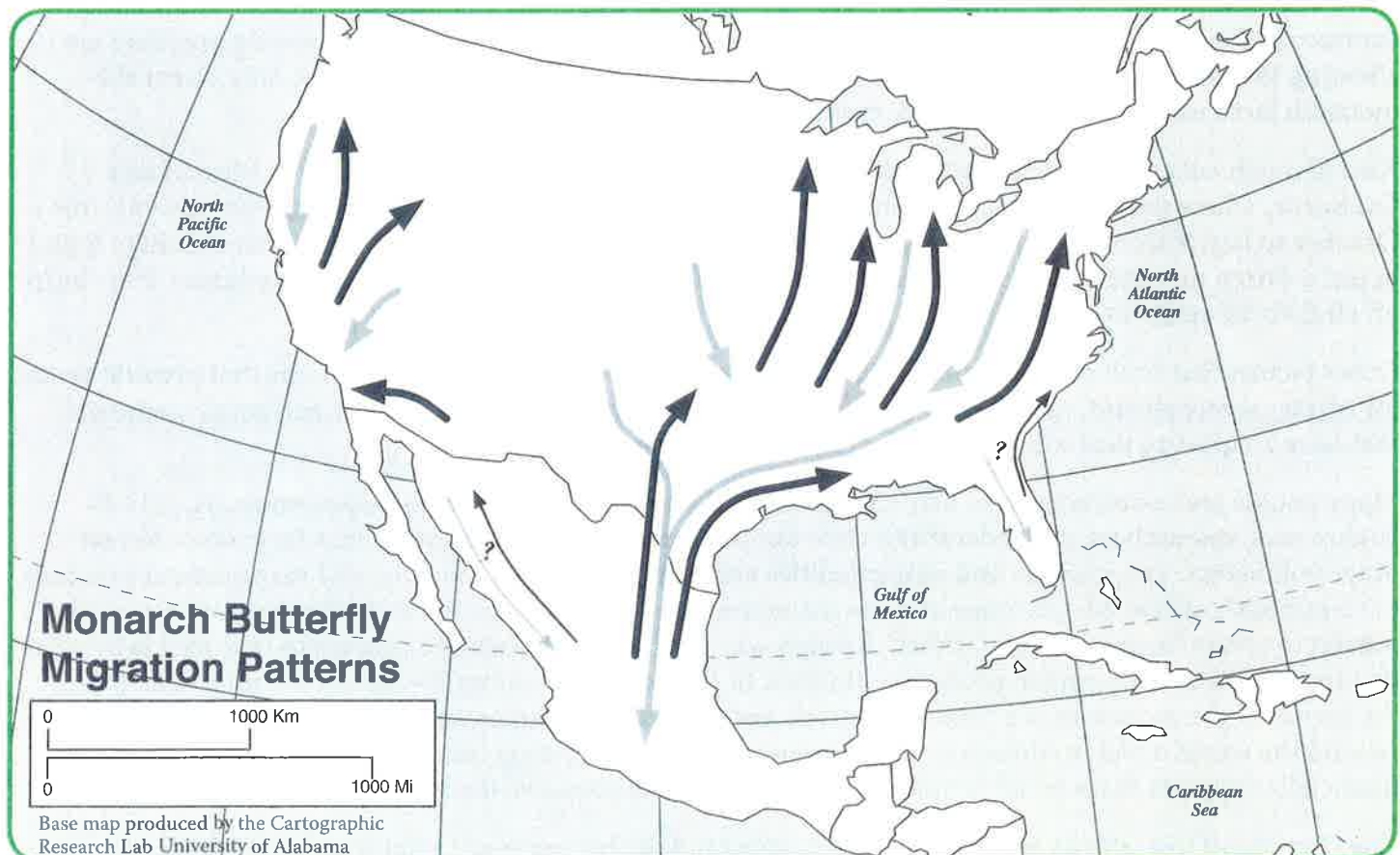
Monarchs cannot tolerate cold weather yet need specific plants found in North America for reproduction. Monarchs must take on a marathon for survival. They spend the winter in temperate climates of central Mexico and coastal California. Special habitats there provide respite and a place to conserve energy. In February and March, monarchs start their spring migration north. They begin to breed and must find milkweed plants to lay their eggs. The adults die, but the eggs hatch, and another generation takes up the migration journey. Successive



generations of breeding monarchs with lifespans of about two to six weeks seek out milkweed plants to lay their eggs, and then their offspring continue the migration toward their northern home. Along the way, the butterflies must also find food, find places to rest, and evade predation and pesticides. Up to four generations of monarchs complete the migration north along specific routes through North America to as far north as Canada. By summer, they have reached their destination.

In fall, shorter days and cooler temperatures trigger behavioral and biological changes in monarchs. While several generations take the monarchs north, a single generation makes the journey south to escape cold winter temperatures. Monarchs west of the Rocky Mountains migrate to the California coast, where they roost in Monterey pine, Monterey cypress, and eucalyptus trees. Monarchs east of the Rocky Mountains migrate to the transvolcanic mountains of central Mexico where they roost in oyamel fir trees, which only grow there. These habitats provide several months of rest in moderate temperatures and humidity, allowing the butterflies to conserve energy. They will not mate or lay eggs until the following spring. Such an adaptation, as well as storing fat in the abdomen, prepares their bodies for the arduous flight rather than wasting energy on reproduction.

Successive generations of breeding monarchs with lifespans of about two to six weeks seek out milkweed plants to lay their eggs, and then their offspring continue the migration toward their northern home. ... a single generation makes the journey south to escape cold winter temperatures.



In the Monarch Butterfly Migration Patterns map above, black arrows represent northern migration routes. The gray arrows represent southern migration routes. Routes scientists are uncertain about are indicated with a question mark.

One of the mysteries scientists are researching is how monarchs find overwintering sites each year. Even though the butterflies traveling to Mexico or California each fall are the great-great-grandchildren of the butterflies that left the previous year, they are able to find their way. No one knows exactly how their navigational system works, but recent research shows that monarchs can track the position of the sun and use this to guide them.

Metamorphosis, another mystery of nature, is the foundation of the monarch's life cycle. It has four stages: egg, larva (caterpillar), pupa, and adult. Monarchs usually lay a single, tiny, white egg on a milkweed plant, often near the top of the plant on the bottom of a leaf. The egg hatches and a yellow, black-and-white striped larva (caterpillar) emerges. Various species of milkweed are host plants for the larvae. After 10-14 days of eating milkweed leaves, the larvae transform into the pupa stage as a jade-colored chrysalis with a tiny band of golden dots near the top. The pupa develops for another 10-14 days, and a butterfly emerges from the chrysalis. The monarch then pumps its distinctive orange and black wings dry and flies away. Monarch butterflies go from egg to adult in about a month's time. The breeding adults that journey north in the summer live two to six weeks before breeding and then dying, while the monarchs that migrate south survive the winter, living six to nine months.



Monarch larvae store milkweed toxins, called cardiac glycosides, in their exoskeletons, making them and the adult butterflies toxic to potential predators.

Monarchs and their amazing annual migration are seriously threatened by human activities in both their summer and overwintering habitats. The use of herbicides, land development, and mowing practices are affecting the availability of milkweed plants (genus *Asclepias*). Milkweed plants are the only plants the monarch larva eats. Without milkweed, monarchs are not able to reproduce.

Also of much concern is habitat loss from deforestation and fire at overwintering sites in Mexico and California, where monarch butterfly colonies are especially concentrated in small areas. For example, from October to late March, eastern monarchs depend on the moderate temperatures and moist humidity found in just a dozen mountain oyamel forests in central Mexico, where habitat and climate conditions don't burn off all their fat reserves or dry out their wings.

Other factors that limit monarch populations include the loss of certain flowering plants that provide nectar for adults, severe storms, exposure to pesticides, predation by a few species of birds and small mammals that have adapted to deal with their toxins, and parasitism (e.g., Tachinid fly).

Many people are taking actions to help monarch populations stabilize. Communities, students, private landowners, researchers, and federal and state agencies are helping to restore habitat for monarchs and other pollinators. Landowners and municipalities are altering planting, mowing, and management practices to re-establish milkweed. Communities are maintaining gardens and natural areas that provide monarch habitat to create "monarch waystations." An easy way for neighborhoods and schools to take part is by planting milkweed and nectar-producing flowers. In Mexico and communities along the migration paths, the arrival of the monarchs is a time for festivals and celebration. Photographers and conservationists from around the world travel to Mexico to see millions of butterflies coating trees and branches. Nature tourism financially supports these small communities and thus helps conserve unique forest habitats.

The purpose of this activity is for students to understand the life cycle and migration of the monarch butterfly, to understand limiting factors for monarch populations, and to become inspired to take action to help monarchs.



Procedure

1 Introduce the topic of migration and discuss with students. Guiding questions could include: “What do you know about migration?”, “What animals migrate?”, “Why do you think animals migrate?”, “Did you know that butterflies migrate?” Then discuss the unique migration of monarch butterflies, with several generations going north and one generation migrating south. Use a globe or map to trace the monarch routes to Mexico (see map in “Background” section). Let students know that they will be participating in an activity that simulates the migration monarchs take each year as well as some of the factors that limit monarch populations and conditions that challenge monarch survival.

2 Explain to students the simulation activity requires that they understand the life cycle of monarch butterflies. Show color images of the monarch butterfly in order to familiarize students with the life stages of monarchs—egg, larva (caterpillar), pupa, and adult. Show images, illustrations, or a time-lapse video of monarch butterfly metamorphosis. Show images of milkweed plants that are native to your area and explain to students the relationship between monarchs and milkweed plants. See “Additional Resources” at www.projectwild.org for links to milkweed photos that are native to various regions of North America.

3 Establish a large open area, preferably outdoors, where the activity will take place. Divide the area into four zones going from “south” to “north.” (See Diagram A.)

a. Zone 1 —This zone represents the overwintering sites in Mexico. Use hula hoops or chalk circles to designate the mountain forests where they overwinter. Have several students stand in each circle to simulate the gathering of the monarchs in a tree.

b. Zones 2 - 4 —Scatter chips to represent nectar. With hoops or chalk, create two or more circles to represent milkweed plants. These need to be large enough to hold several students.

4 Divide the class into four groups.

Group 1 – First Generation Monarchs

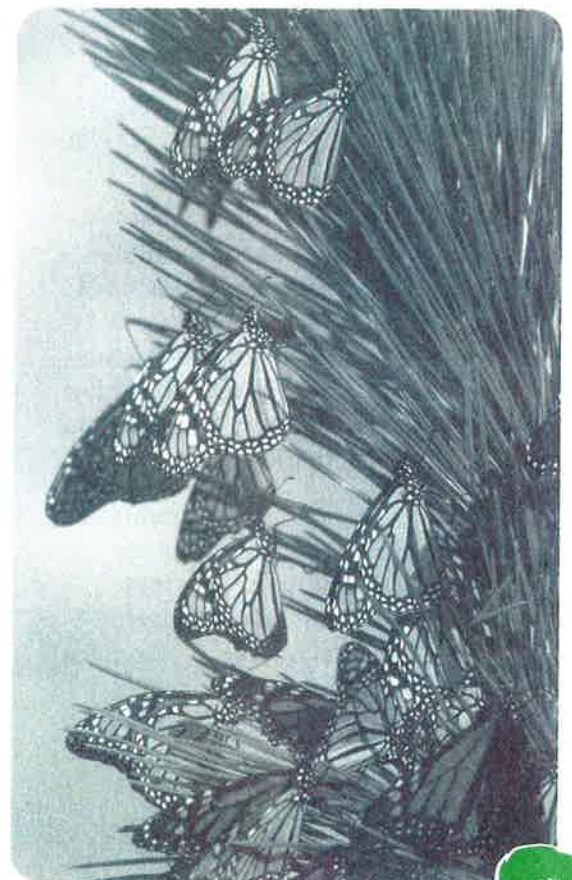
Students representing the first generation of monarch butterflies will start in Zone 1. They have spent the winter resting in the mountain forests in Mexico and are waiting for spring.

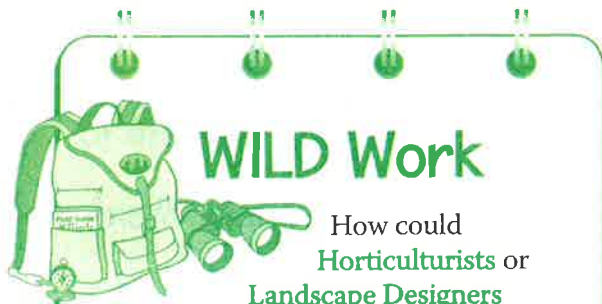
Group 2 – Second Generation Monarchs

Students that will become the second generation of monarchs will be located in Zone 2, standing on the milkweed plants.

Monarchs west of the Rocky Mountains migrate to the California coast, where they roost in Monterey pine, Monterey cypress, and eucalyptus trees.

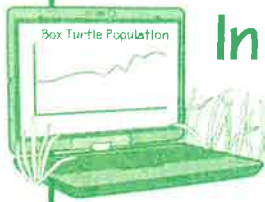
Monarchs east of the Rocky Mountains migrate to the transvolcanic mountains of central Mexico where they roost in oyamel fir trees, which only grow there.





WILD Work

How could **Horticulturists** or **Landscape Designers** cooperate with a **Conservation Specialist** to enhance habitat appropriate for monarch butterflies? Visit www.projectwild.org for more information.



In Step with STEM

■ A butterfly garden is an attractive and educational way to help monarchs and other species of butterflies. In addition to planting milkweed, consider species of nectar-producing plants that help feed migrating butterflies. For online resources to help you plan, plant, and monitor a butterfly garden with students, go to www.projectwild.org.

- Map the migration routes of the monarch butterfly. Do the monarchs travel to any local areas? Record any observations of monarch butterflies as data points on the map. How can you use this information to help monarchs? See www.projectwild.org for additional migration activities.
- How do pesticides affect monarch butterflies? What are common pesticides that may come into contact with monarch butterflies? Are there alternatives to pesticides that may be better options for farmers and gardeners to use?

Group 3 – Third Generation Monarchs

Students that will become the third generation of monarchs will be located in Zone 3, standing on the milkweed plants.

Group 4 – Fourth Generation Monarchs

Students that will become the fourth generation of monarchs will be located in Zone 4, standing on the milkweed plants. These students will become the migrating generation of monarchs who travel south to Zone 1.



Diagram A

5. Review the stages of metamorphosis and explain this will be part of their migration challenge. Walk the class through the activity and explain these steps:
 - a. Each generation goes to their respective zones. First Generation Monarchs are gathered on their wintering habitat, while the next generations wait on milkweed in their respective zones. The teacher calls out, "It's spring!" Students then call out, "Fly north!" First Generation Monarchs may now fly from their starting position in "Mexico" (Zone 1) to Zone 2. In Zone 2, each First Generation Monarch must pick up a nectar chip for energy. They may then "land" on a milkweed plant (which is the host plant required for them to lay their eggs) to tag a waiting student. Once they've laid their egg (tagged another student), tell the First Generation Monarchs that their monarch lives are now coming to an end. These students then wait on the sidelines for further instructions. They may become conservation helpers by redistributing nectar chips in Zone 2, stay in Zone 2 to become next round's Second Generation Monarchs, or become a limiting factor that affects monarchs.



- b. The tagged students in Zone 2 go through metamorphosis. Have them put their hands on their heads to simulate larva and pupa stages, count to ten, and then “hatch” into the second generation monarch butterfly. (To reinforce learning about metamorphosis stages, students may simulate two stages by calling out, “Larva!” and make eating motions with their hands while counting to ten, and then call out, “Pupa!” with hands on head while counting to ten and then “hatch.”) Students then fly to Zone 3, where they first pick up one nectar chip for energy and then “land” on a milkweed plant to lay their egg.

OPTION: For younger learners, spend one session practicing the “Life Cycle Story Dance,” which has students physically act out the life cycle stages of the monarch butterfly. Students begin rolled up in a ball (egg), “hatch” and stretch out (caterpillar), curl up and hold still for a count of 10 (chrysalis), and lastly “emerge” and shake out their “wings” (butterfly). Substitute the Life Cycle Story Dance for “hands-on-head” and eliminate the nectar chips during migration. See the Growing Up WILD activity “Grow As We Go,” which features this modeling activity for younger learners. For information on obtaining Growing Up WILD materials and training, visit www.projectwild.org.

- c. After Second Generation Monarchs have “emerged,” each will fly from Zone 2 to Zone 3. Each must pick up a nectar chip for energy, land on the milkweed, and tag one of the waiting students. The tagged students become the Third Generation Monarchs by acting out the “metamorphosis” as the previous group did.

As with the First Generation Monarchs, tell the Second Generation Monarchs that their monarch lives are now coming to an end and they should move to the sidelines to wait for further instructions. They will have the same options as the previous generation for the next round.

- d. Repeat the step above for Third Generation Monarchs.
- e. After being tagged, Fourth Generation Monarchs go through metamorphosis and pause. They are in their summer home up north. This will now begin the final leg of the relay. On the teacher’s signal, “It’s fall!”, students call out, “Fly south!” At this point, the Fourth Generation Monarchs fly “south,” back through Zones 4, 3, and 2, collecting one nectar chip from each of these three zones along the way. The final stop is Zone 1, the initial starting point of the relay (Mexico). The relay is complete.
6. Complete the first round of the course without introducing hazards or limiting factors in order to allow students to familiarize themselves with the course and the required behavior for each role. After the students have completed one round of the entire course, play additional rounds including limiting factors. One limiting factor may be added to each round of the activity at a time. Keep track of the number of monarchs at the end of each round.

Limiting Factors:

- Habitat Loss – Remove a portion (one or more) of the milkweed plants and nectar chips from one or more of Zones 2 through 4. This should result in some of the monarch butterflies being unable to “reproduce” and the next generation of the butterflies being smaller.

Explain to those who did not find milkweed that their monarch lives are coming to an end. They can now become something that may help or hinder monarchs (a milkweed plant, a nectar-producing plant, a non-producing plant, a storm, a predator, etc.).

- Pesticide – Provide a few of the milkweed students within one or more of the zones with a token that represents a pesticide. When these students are tagged by a butterfly, that butterfly is given the token and “dies.” Apply this limiting factor for the fourth generation of monarchs that migrate to Mexico.
- Weather – Assign a few students to act as weather hazards in one or more zones. Each weather hazard student can spin with arms out to simulate a storm. Any migrating monarchs (especially the Fourth Generation that will have to pass through each zone on its way to Mexico) may “die” if tagged by a “storm.”



- Predation – Assign students to act as the black-headed oriole, black-headed grosbeak, or black-eared mouse that prey on the monarch butterflies. Position these students between Zones 1 and 2. The “predators” tag the monarch butterflies while “flying” from Mexico. (The black-backed oriole and the black-headed grosbeak are the only known bird species with adaptations that allow them to eat monarchs. They are both found near the monarchs’ Mexican roosts. Since monarch butterflies store toxin in their exoskeletons, the black-backed oriole avoids poisoning by opening a monarch’s body to eat only the soft interior. The black-headed grosbeak eats the whole abdomen of monarchs but is able to tolerate certain levels of the toxin. The black-eared mouse is also known to eat monarchs without being harmed by the poison.)

7. After completing multiple rounds, encourage students to discuss and summarize the results. Ask students to describe factors that both promote and limit the survival of monarch butterflies. How did the effects of each limiting factor compare? Why is milkweed so important to the survival of monarchs? What recommendations would students suggest to increase the successful reproduction and migration of monarch butterflies?

Variations

1. Explain to students that one way people can help animal species that migrate is to establish corridors that provide habitat components for the species. After implementing various limiting factors into the monarch activity, designate a “corridor” that allows safe passage for the monarchs.

2. For a more accurate representation of the fall migration from the United States and Canada to Mexico, students acting as the fourth generation monarchs can stop once at each of the zones and tag an additional student representing a flowering plant (providing nectar to the adult butterfly) at each stop in order to complete the race. In this way, students are demonstrating that the fourth generation monarchs have to utilize stop-over habitats (for food in order to survive) in a similar way that the other generations did; however, the difference is that these butterflies make the entire trip themselves.

3. For larger groups (over 20 students) you can have different sets of monarchs use different paths in their migration. As monarch butterflies migrate to northern regions in the United States and Canada, there are three routes they can follow. Use a globe to trace the migration routes (see map in “Background” section). Mark three pathways, or “flyways” (Flyway A, Flyway B, and Flyway C), on the field, keeping four zones

within each flyway (see Diagram B). For Flyway A, Zone 1 represents southern California; Zone 2 represents central California; Zone 3 represents northern California; and Zone 4 represents Washington. For Flyway B, Zone 1 represents Mexico; Zone 2 represents Texas; Zone 3 represents Kansas; and Zone 4 represents Minnesota. For Flyway C, Zone 1 represents Mexico; Zone 2 represents Texas; Zone 3 represents Virginia; and Zone 4 represents Maine. See Diagram B below. Direct groups of students to use these flyways as they progress through the zones, acting out each generation as before.



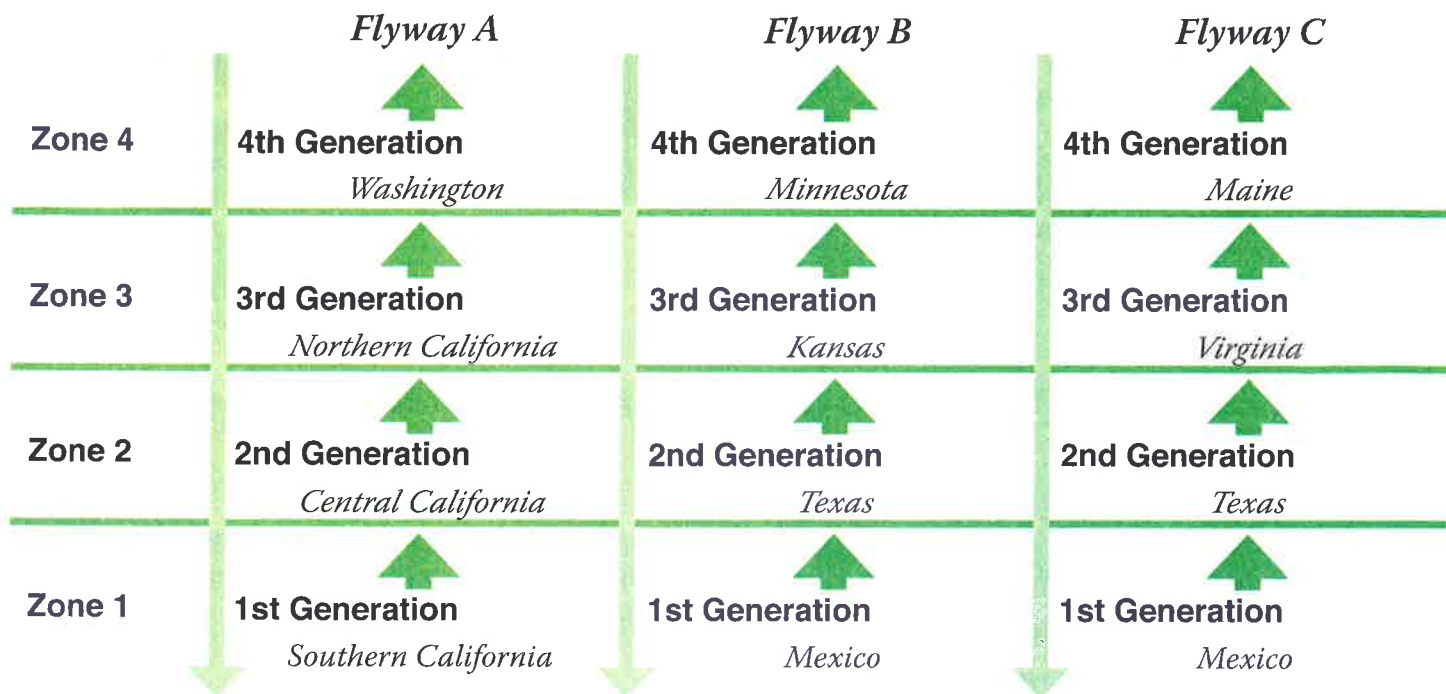


Diagram B

Extensions

1. Plant native species of milkweed with students. Most species do well in full sun and should be planted late in the spring when the danger of frost has passed. Be sure the milkweed is the correct native species for your region. Other species of milkweed flower at different times of year than the native species and may interfere with the life cycle of the monarch.
2. Explore different types of metamorphosis (complete, incomplete) and the life stages involved. Which kinds of organisms typically go through each type of metamorphosis?
3. Habitat loss is one of the limiting factors monarch butterflies (and other wildlife) face. What are some causes of habitat loss? How might climate change affect the habitat and/or migration of monarch butterflies? Consider, for example, shifting geographic ranges, phenological (timing) changes in plants needed by the monarch, and increasing rates of forest fires.
4. Hold a “pollinator bioblitz.” Designate a set period of days and challenge students and their families to take and share pictures or video of as many pollinators and nectar-producing plants as they can find.

Assessment

1. Describe the life cycle of the monarch butterfly using the following terms: egg, larva, pupa, adult.
2. Using a globe or map of North America, trace the migration route(s) of monarch butterflies.
3. Define three limiting factors for monarch butterflies.
4. Describe three actions people can take to help monarch butterflies.

Adapted with permission from “Monarch Mishaps: A Game of Survival,” in *Monarchs and More - An Inquiry and Arthropod Based Curriculum* by Dr. Karen Oberhauser, University of Minnesota, 4th edition (2007).

In the Life of a Falcon

Subject: Language Arts & Social Studies

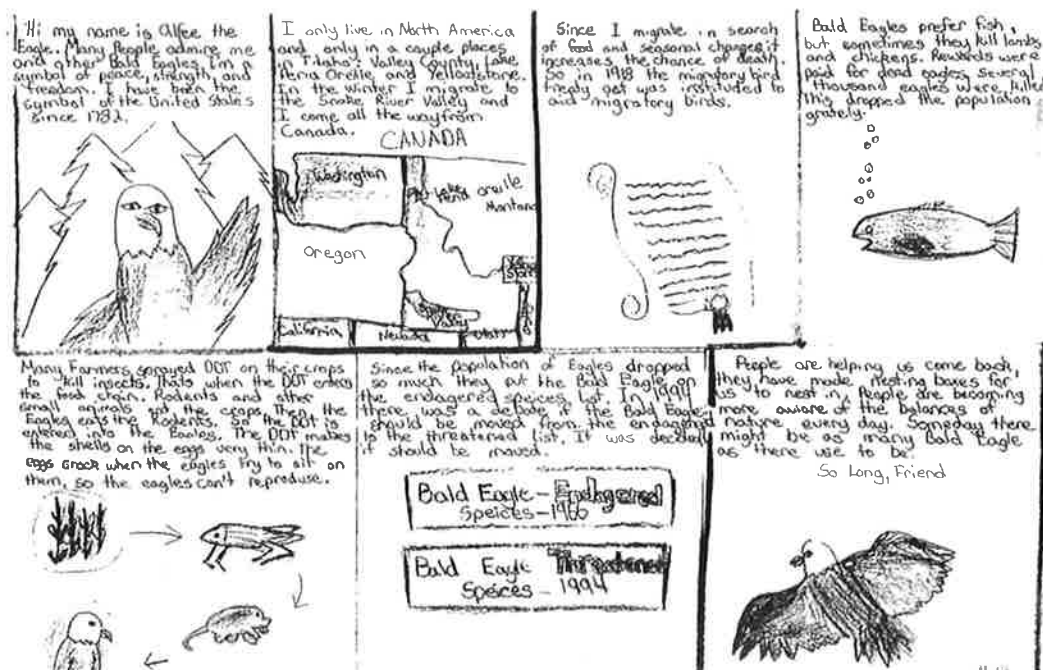
Objective: Students read articles about the history of the success stories of peregrine falcons in the United States. To show comprehension, students will write comic strips told from a falcon's point of view.

Materials:

- Access to internet or library materials for research purposes
- coloring tools (markers, pens, crayons)
- 12" X 18" white construction paper

Procedure:

1. Discuss with your class the endangered species law, and why it is necessary.
2. Ask students if they know of some success stories about a species' recovery. Share success stories such as the whooping crane, eagle, or wolf. Tell the students that peregrine falcon numbers were extremely low after World War II. Ask them if they know why.
3. Tell students they will be researching the story of peregrine falcons in the United States. When did people notice they were disappearing? What did they link it to? What was the recovery plan? What is the Peregrine Fund? When did the reintroduction program begin at Cornell University? How long did it take to see the results? Review information in *Wildlife Express*, then spend some time researching other sources.
4. After the students gather their information, have them work with a partner to write and illustrate a comic strip about the recovery effort from a falcon's point of view. The comic strip should include the following: An introduction box (where the peregrine introduces itself), important dates and events (in at least five boxes), and a conclusion box (where, perhaps the falcon says, "Thanks!").
5. Included below is a student's work from an eagle's point of view.



Idaho State Emblems Reports

Subject: Language Arts & Social Studies

Objective: Students will be able to research state symbols of Idaho and, with a partner, prepare a short oral presentation for the class.

Materials:

- ☐ How to Speak with Confidence handout
- ☐ Internet access or library materials
- ☐ coloring tools (markers, pens, crayons)
- ☐ poster board (for visual aids)
- ☐ *Wildlife Worksheet* (State Symbols Quiz)

Procedure:

1. Discuss with your class the purpose of state symbols or emblems. Why do states choose them? What do they represent? Also, discuss how symbols are adopted. Some emblems that have been adopted started with a classroom of students or an individual nominating it.
2. Use the included "How to Speak with Confidence" handout to review and discuss writing and delivering an oral report.
3. Assign pairs of students to work together. Let one student from each pair draw from a list of the following: state bird, state amphibian, state dance, state fish, state flag, state flower, state fossil, state fruit, state gem, state horse, state insect, state raptor, state seal, state tree, and state vegetable. Have each pair research the particular symbol at the library and/or on the internet.
4. The pair will then work together to plan an oral presentation in which they can share the information they learned. The presentation should include the emblem's history, a poster depicting the emblem, and at least one other visual aid. Suggestion for grading rubric:

Introduction	10
Body	40
	-history of symbol (20)
	-unique fact about symbol (20)
Conclusion	10
Eye contact	6
Posture	6
Voice Quality	6
Gestures	6
Visual Aid	10
Extra	6
Total	100



How to speak with Confidence

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Modified and re-keyed by Lori Adams

A cold sweat breaks out all over your body; your stomach lurches as if on a roller coaster, your breathing rate increases—all because of a request to read aloud or give a speech or deliver an oral report.

Fear—generally defined as anxiety or apprehension caused by possible danger or pain—clutches the hearts of many people at the suggestion that they give an oral presentation. Knowledge and practice can do much to ease this fear. Read and practice the following to increase your confidence while speaking.

I. Preparing an oral report

Giving an effective oral presentation is a skill that will help you in all subject areas, clubs and careers.

Gather your information

1. Understand the purpose of the presentation.
2. Write down what you already know about the topic. Include any personal experiences related to the topic.
3. Bring your information up to date. Your material must be extensive and solid. Your facts should include statistics, stories and examples.
3. Organize your material in a clear, logical manner. Use note cards to outline your main ideas.
4. Write your oral report in a clear, natural way so that it moves from one point to the next, just as you would a written report.

A. The introduction should gain the attention of the audience and make them want to know more. Let them know what you will be talking about.

B. The body of your report is the main part. It should explain your topic clearly.

C. The conclusion of your report should be well thought-out. End by reminding

your audience what the purpose of the report is. Don't say, "That's all." Repeat the main points of the report. Tell your audience something they will remember about the presentation. Give your audience the feeling of "that's the end," without saying so!

5. Plan how you will use a visual aid. If you're including a poster be sure the audience will be able to see it from where they are sitting.

II. Delivering the report

1. Speak in a direct, friendly style. Establish eye contact with audience. Use appropriate gestures to emphasize.
2. Present your point of view clearly and fairly.
3. Stay within the boundaries of your theme. Don't overload your audience.
4. Try to stimulate the audience to think for themselves, not just agree with you.
5. Make full use of audio or visual aids. Be certain the audience can hear or see the aids.

Keys to successful Speaking

1. Know the purpose or goal of your presentation.

2. Make your subject interesting, entertaining and timely.
3. Know and understand your audience.
4. Use stories, quotes and other interest arousing devices.
5. Find room for humor.

When you speak:

1. Be poised, neatly dressed and confident.
2. Speak with enthusiasm.
3. Keep eye contact.

III. Improve your delivery

An audible, flexible voice and an expressive body are necessary to deliver an effective presentation.

1. Practice repeating the alphabet. The first time, try changing your rate of delivery. Begin slowly, then speed up, and end by speaking slowly. The second time, add emphasis to the rate changes. The third time, add a gesture or two to the emphasis and rate changes. Be enthusiastic!
2. Read the following statements as expressively as possible. Emphasize one word the first time and another the second. Try to change the meaning or mood by stressing different words.

- A. You don't think I stole the money, do you?
- B. Why didn't you warn me the teacher was coming?
- C. I didn't say that.
- D. I am so bored.
- E. Let go of my purse!
- F. The house was completely empty.
- G. It's raining again.
- H. I love this snow.
- I. Math is my favorite subject.
- J. The library is just down the street.

Now read the statements again and add whatever gestures and facial expressions seem natural.

3. Distinguish between the following pairs of sentences by proper phrasing. To do the exercise correctly, you must think of the meanings as you say the words.

- A. Sharon wore a flashy, red sweater
Sharon wore a flashy-red sweater.
- B. What? Have you told them?
What have you told them?
- C. The Indian chief asked, "How?"
The Indian chief asked how.
4. To improve the use of your body, practice the following short pantomimes. Try to communicate your thoughts and feelings through actions. No words are allowed.

- A. Carry an empty laundry basket.
- B. Carry a cage full of mice.
- C. Walk leisurely, enjoying a warm day.
- D. Sneak past your parents after curfew.
- E. Wait impatiently at the bus stop.
- F. Sing in the shower.

IV. Be the expert

Practice makes perfect when learning to speak in front of a group. When your teacher asks you to read aloud, jump at the opportunity. When reading, read loudly and clearly.

Overcome your fear by taking speaking and reading to a group as a challenge. You'll feel good about it when you do. Talking in public will help you in many ways. Many careers require you to have good speaking skills.

Have fun!



Idaho State Symbols Quiz



Write the letter to the correct answer in the blank provided.

1. _____ Idaho's state bird is the
 - A. mountain chickadee
 - B. mountain bluebird
 - C. cardinal
 - D. American robin
2. _____ Idaho's state dance is the
 - A. square dance
 - B. polka
 - C. hokey-pokey
 - D. jazzercise
3. _____ The background color of Idaho's flag is
 - A. red
 - B. yellow
 - C. blue
 - D. green
4. _____ Idaho's state fossil is
 - A. triceratops
 - B. horse
 - C. platypus
 - D. frog
5. _____ Idaho's state fruit is the
 - A. cranberry
 - B. boysenberry
 - C. wild strawberry
 - D. huckleberry
6. _____ Idaho's state gem is a
 - A. garnet
 - B. ruby
 - C. diamond
 - D. emerald
7. _____ Idaho's state flower is a
 - A. daisy
 - B. sunflower
 - C. buttercup
 - D. syringa
8. _____ Idaho's state insect is the
 - A. cricket
 - B. praying mantis
 - C. beetle
 - D. monarch butterfly
9. _____ Idaho's state raptor is a
 - A. kestrel
 - B. bald eagle
 - C. barn owl
 - D. peregrine falcon
10. _____ Esto Perpetua is Latin for
 - A. It is forever
 - B. flowing water
 - C. love Idaho
 - D. wild land
11. _____ Idaho's state tree is the
 - A. Western white pine
 - B. alpine fir
 - C. blue spruce
 - D. Scotch pine
12. _____ Idaho's state vegetable is
 - A. corn
 - B. potato
 - C. carrot
 - D. broccoli
13. _____ Idaho's state horse is
 - A. stallion
 - B. clydesdale
 - C. appaloosa
 - D. mustang
14. _____ Idaho's state fish is a
 - A. sockeye salmon
 - B. tuna
 - C. cutthroat trout
 - D. northern pike minnow

Name _____

Standards and Correlations

Distinguish between natural objects and objects made by humans.

Begin to demonstrate an understanding that a map represents the physical environment.

Resources

P is for Potato

by Stan & Joy Steiner

Peregrine's Journey – Story of Migration by Madeline Dunphy

Monarchs by Kathryn Lasky

It's My State: Idaho

by Doug Sanders

Idaho Facts and Symbols

by Elaine A. Kule

Hello USA : Idaho by Kathy Pelta

Blue Sky Blue Bird

by Rick Chrustowski

Trout! Trout! Trout! A Fish Chant

by April Pulley Sayre

Lightening's Tale: The Story of a Wild Trout by Hugh Campbell

<http://www.atoz-kidsstuff.com/idaho.html> (Has lots of Idaho information and coloring sheets)

<http://www.accessidaho.org/education/kids.html> (Facts about Idaho, good for further research)

Idaho Chapter American Fisheries Society www.idahoafs.org

Trout Unlimited <http://www.idahotru.org/>

Idaho State Symbols

Children learn state symbols to help show how much natural resources mean to Idahoans.



Words to know
symbol insect raptor
fossil natural resources

Materials and Prep

copies of Idaho puzzle on page 65.

pictures of Idaho state symbols

Procedure

1. Point out the location of Idaho on a map.
2. Discuss things children like about living in Idaho.
3. Tell how a symbol represents something. Give examples. Share reasons why Idaho has the symbols it does.
4. Review non-living and living things by placing each "symbol" in the appropriate column. Introduce the term "natural resource" by talking about things that are in nature and things that are made by humans.
5. Hand out a copy of page 65 to each child. Have them color it and cut it out. When they're finished, have them give it to an adult or teacher to cut into a puzzle. The child can then glue his or her "puzzle" together on a separate sheet of paper.





square dance

The State Folk Dance is the Square Dance. Ask a square dancer to come in and demonstrate.

I-D-A-H-O

(To the tune of "Old MacDonald")

There was a state named Idaho

I - D - A - H - O

And in the woods there was an elk

I - D - A - H - O

With a bugle, bugle here

And a bugle, bugle there

Here a bugle, there a bugle

Everywhere a bugle, bugle

There was a state named Idaho

I - D - A - H - O

2. Wolf, howl, howl

3. Bear, growl, growl

4. Bluebird, chirp chirp

5. Falcon, reheel, reheel

Here we have Idaho*

You've heard of the wonders our land does possess,

Its beautiful valleys and hills,

The majestic forests where nature abounds,

We love every nook and rill.

CHORUS

And here we have Idaho

Winning her way to fame.

Silver and gold in the sunlight blaze,

and romance lies in her name.

Singing we're singing of you,

Ah, proudly too,

All our lives thru, we'll go

Singing, singing of you,

Singing of Idaho.

There's truly one state in this great land of ours
Where ideals can be realized.

The pioneers made it so for you and me,

A legacy we'll always prize.

CHORUS



Art project

Idaho state symbols Headband

Have children create a unique Idaho state headband. See page 66 for directions and template.



potato stamp art

1. Cut a potato in half.
2. On the cut surface, draw a simple design or letter shape. Deeply trace the outline of the design using a pencil or plastic knife.
3. Carve potato away from outside of design leaving design raised in relief. On top rounded part of potato, cut away sides to form a handle for easier grip.
4. Have children paint onto design, then stamp on paper.



wrap up

- What is your favorite Idaho state symbol?
- What is the name of our state fish?
- How many state symbols can you name?



snack

Idaho Spud Bar bites

Baked potato with toppings - Potato Bar style!



Idaho Sugar Cookies

Centers & Extensions
IDAHO Acrostic
In your journals, write an acrostic poem using IDAHO.

Personal Symbol
Choose a symbol or totem to represent yourself.

Idaho Dot to Dot
See page 67.



HOME CONNECTIONS

In your journal, draw your favorite Idaho state symbol. Tell why it is your favorite.

Draw a picture of state symbols you've seen.

Play *Travel / Spy*. Look for state symbols while traveling.

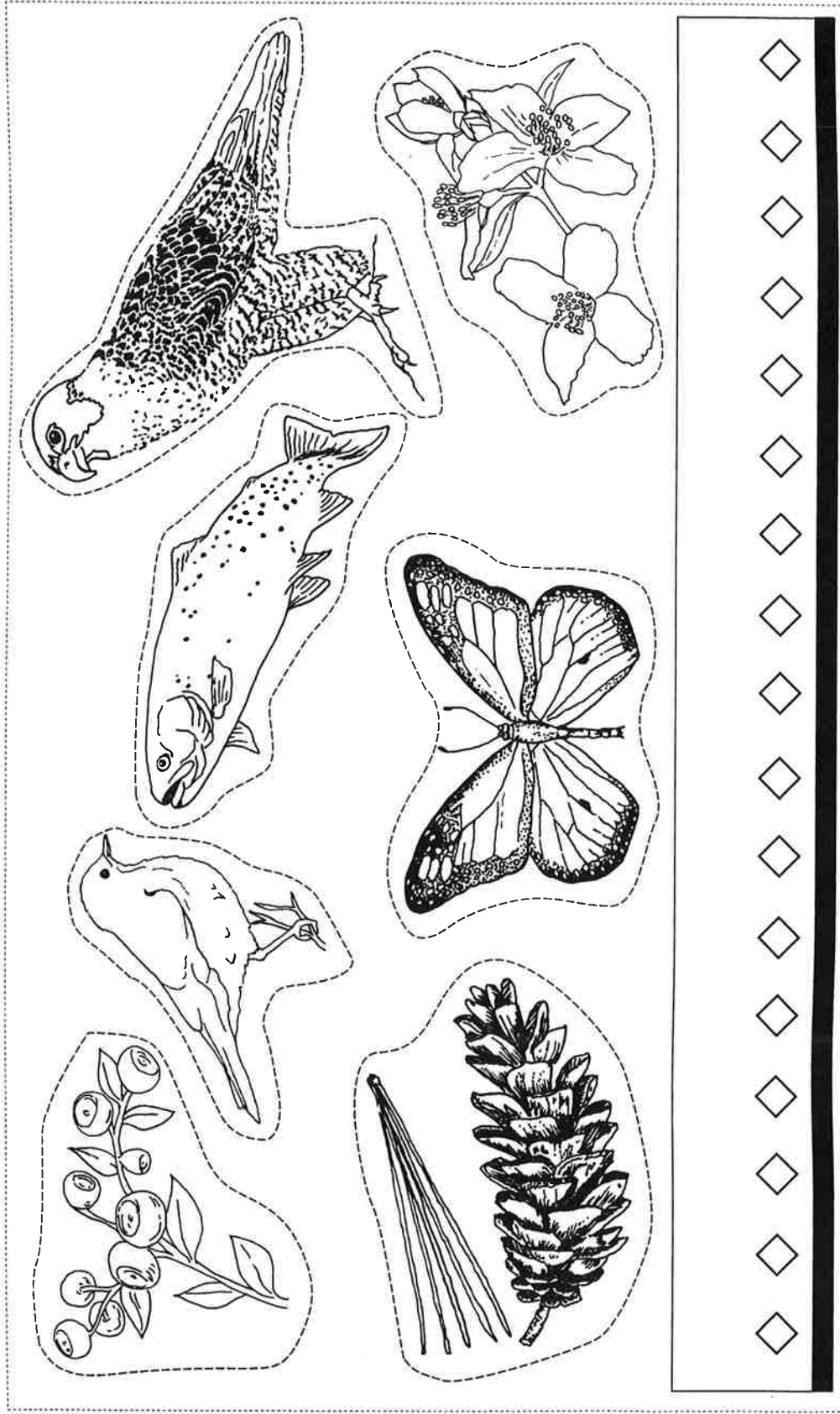
Create a family flag.

Idaho State

Symbols – Puzzle

Directions: Make a copy of the Idaho map for each child.
Ask children to color it and cut it out. Create a puzzle of
it by following directions on page 24.

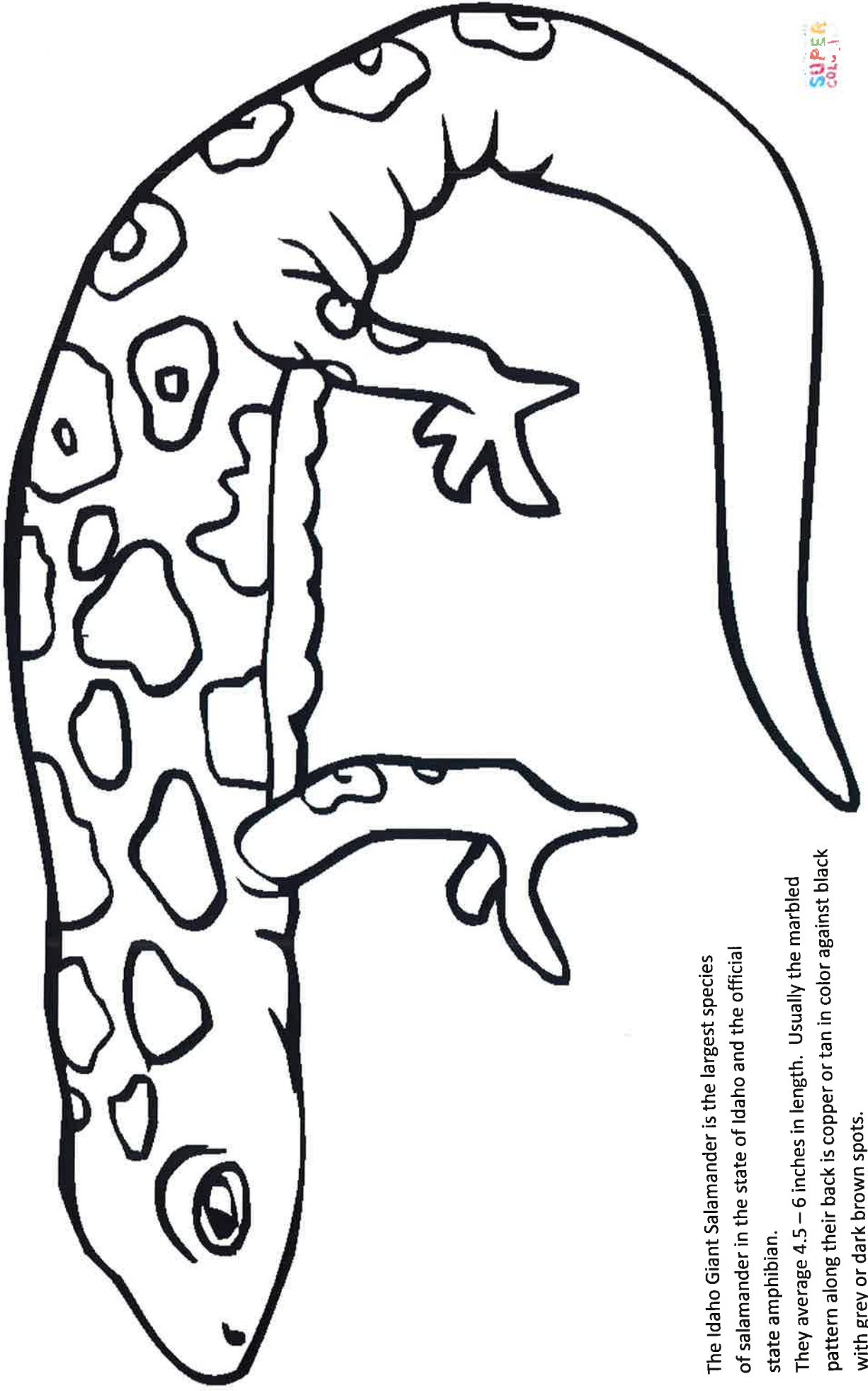




Idaho State Symbols Headband

Instructions

1. Copy state symbols template (above) for each student
2. Have students write Idaho across the front of the headband, & color the state symbols.
3. If needed, assist students in cutting the symbols. Glue symbols around the headband.
4. Add a strip of paper to headband for sizing. Staple or tape headband together. If stapling, have the ends pointed out so they don't get tangled in students' hair.



The Idaho Giant Salamander is the largest species of salamander in the state of Idaho and the official state amphibian. They average 4.5 – 6 inches in length. Usually the marbled pattern along their back is copper or tan in color against black with grey or dark brown spots.